

### ABSTRACT OF THE DISCLOSURE

An inductor for high current applications includes a nonconductive, tubular form which defines a tube axis and has a cylindrical outer surface. The outer surface is formed with a groove that extends helically about the tube axis. The inductor further includes a coiled, conductive wire that is formed with a plurality of turns. The wire is wound around the outer surface of the form with at least a portion of the wire disposed in the groove. With this structure, the form maintains a predetermined separation between adjacent turns of the coil preventing deformation of the coiled wire by strong magnetic forces that are generated when relatively high electrical currents are passed through the wire.